IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Cary L. Bates, et al.

Serial No.:   09/804,424

Filed: March 12, 2001

For: ACCESS TO APPLICATIONS OF AN ELECTRONIC
                      PROCESSING DEVICE SOLELY BASED ON GEOGRAPHIC
                      LOCATION

Group Art Unit: 2135

Confirmation No.:   1815

APPEAL BRIEF IN SUPPORT OF APPEAL
FROM THE PRIMARY EXAMINER TO THE BOARD OF APPEALS

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant submits herewith an appeal brief in support of the appeal to the Board
of Appeals from the decision dated May 20, 2005, of the Primary Examiner finally
rejecting claims 1, 2, 4-9 and 11-14.

The appeal brief fee of $500.00 is:

___   Enclosed.

___   Not required. (Fee paid in prior appeal.)

_X_   Charged to Deposit Account No. **09-0465**. A duplicate
        copy of this sheet is enclosed.

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1. Real party in interest

The Real party in interest is International Business Machines, Inc., the assignee of the above-identified application.

2. Related appeals and interferences

There are no related appeals or interferences for the above-identified application.

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3. Status of claims

Claims 1, 2, 4-9, and 11-14 are pending. Claims 1, 2, 4-9, and 11-14 have been final-rejected. Applicant appeals the final-rejection of claims 1, 2, 4-9 and 11-14.

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4. Status of amendments

Applicant filed an amendment on November 24, 2004. The Examiner entered this amendment in the Office Action dated May 20, 2005.

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5. Summary of claimed subject matter

People in our society have increasingly come to rely on mobile electronic devices, such as laptop computers, cellular phones, hand-held personal digital assistants, etc. as they travel. These devices, in turn, have become increasingly complex and capable of maintaining a myriad of programs as well as maintaining connections with networks such as the Internet. As the value of the information stored on and/or accessible by these devices has increased, it has become increasingly important that the devices be able to restrict access to the information.

Frequently, applications only need to have and/or allow access to particular bits of confidential information at a particular location, such as the an owner's place of employment. Conversely, in these situations, it is preferred or even required that access to the information not be granted to the device outside of that particular locale. There is thus a need in the industry to restrict access to specific functions within an electronic processing device based on geographic location.

The present invention overcomes these problems by providing a self-authorizing device that restricts access to specific functions within an electronic processing device based on geographic location. In this way, applications and/or programs having access to confidential information within an electronic processing device can be enabled only at a place of employment or other specific locations.

Applicant believes the above satisfies the requirements of 37 C.F.R. §41.37 (c) (v).

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6. Grounds of rejection to be reviewed on appeal

The Examiner: (i) rejected claims 1, 2, 4-7, 11, 14-16 under 35 U.S.C. §103(a) as unpatentable over Rangedahl et al in view of Mansell et al (US Patent No. 5,223,844) and Duda et al (US 6,275,877 B1); and (ii) rejected claims 8 and 12-13 under 35 U.S.C. §103(a) as unpatentable over Rangedahl et al in view of Mansell et al (US Patent No. 5,223,844), Duda et al (US 6,275,877 B1), and Grube et al (US 5,778,304). Applicant requests review of all rejections.

Applicant believes the above satisfies the requirements of 37 C.F.R. §41.37(c)(vi).

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7. Argument

Applicant expressly states that the rejected claims do not stand or fall together. For purposes of this appeal, Group 1 consists of claims 1, 2, 4-7, 9, 11, and 14-16; Group 2 consists claims 8 and 12-13.

I.   Groups 1 and 2

The Examiner bears the initial burden of establishing a prima facie case of obviousness. *M.P.E.P. § 2142.* To satisfy this burden, three basic criteria must be met. First, there must be some suggestion or motivation to make the proposed modification or combination. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations. *M.P.E.P. § 2143.* The challenged rejections fail to meet at least the first and third criteria.

A.   The proposed combination does not teach all of the claimed elements.

As discussed in the summary section and Applicant's previous responses, the claimed inventions are directed at a *self-authorizing* device that restricts access to specific functions within an electronic processing device based on geographic location. In this way, applications and/or programs having access to confidential information within an electronic processing device can be enabled only at a place of employment or other specific locations and such access is not dependent on the presence of a wireless network.

Rangedahl, in contrast, was created to solve a specific problem - that of relocating one group of users occupying a band of frequencies to a new band of frequencies in order to allow a new group of users to access the previously occupied band. To prevent interference with user groups which have not yet relocated, new users are prevent from

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operating in certain geographical locations. Significantly, all authorization is done remotely, by the network operator, not by the electronic device.

Accordingly, Applicant respectfully submits that Rangedahl does not teach or suggest a device comprising a "memory to store a . . . at least one geographic location in which at least one function/application is enabled, and an enablement bit to enable the function/application in the geographic location, the memory within the electronic processing device and connected to the processing electronics." Rangedahl specifically teaches that a network controller does all the authorization; that is, "for normal operation to occur, the normal device operation must receive an enable signal" from the network. *Rangedahl, col. 3, lines 44-47 (reference numbers omitted); col. 6, lines 16-30 and col. 7, lines 50-67 (*explaining that the authorization device 20 determines whether an operation is allowed). Moreover, Rangedahl fails to teach or suggest *any* "verifier to periodically determine that the electronic processing device is still within the geographic region which the function/application is enabled, and if not, to disable the function/application," much less a verifier that is part of the self-verifying electronic device. Instead, Rangedahl requires that the device remain at single location (i.e., within transmission range of the base station) while used and thus has no need for a verifier. *E.g., Col. 2, lines 10-15* (explaining the base station uses PSTN lines to communicate with the authorization device 20).

Mansell also fails to teach or suggest these elements. Instead, Mansell is directed at a vehicle tracking and security system. Unlike the present invention, however, there is no teaching or suggestion of location-specific authorization to use the vehicle. Moreover, like Rangedahl, Mansell teaches that the decision making should be done remotely, by the control center, not by the electronic device. *E.g., Mansell, col. 8, lines 55-60* (teaching that "it is preferred that the display controller 180 simply provide information . . . so that the operator may exercise human judgment before an emergency service is called).

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Naturally, in view of these limitations, Mansell also fails to disclose a verifier that periodically determines that the electronic processing device is still within the geographic region which a function/application is enabled.

Duda also fails to teach or suggest these elements; Duda appears unrelated to the field of accessing particular applications/functions of electronic processing devices only within an allowed geographic region.

B. There is no motivation to make the proposed combination.

The Federal Circuit has repeatedly made clear that the prior art must suggest the desirability of the combination. *E.g., M.P.E.P. § 2143.01*; *In re Fine*, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990). If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed combination. *E.g., M.P.E.P. § 2143.01*, citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Similarly, if the proposed combination would change the principle of operation of the prior art being modified, then the teachings are not sufficient to satisfy the Examiner's prima facie obviousness case. *Id.,* citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

The primary reference in this case, Rangedahl, was created to solve a specific problem - that of relocating one group of users occupying a band of frequencies to a new band of frequencies in order to allow a new group of users to access the previously occupied band. To make the monitored device of Rangedahl self-authorizing would destroy this function. That is, the very purpose of Rangedahl is to allow a larger entity that is aware of the user groups of a particular frequency to permit or prohibit use. Self-authorization is antithetical to this purpose.

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The secondary references Mansell and Duda also fail to provide motivation to make the proposed combination. Mansell specifically teaches that the decision making should be done remotely, by the control center, not by the electronic device. *E.g., Mansell, col. 8, lines 55-60* (teaching that "it is preferred that the display controller 180 simply provide information . . . so that the operator may exercise human judgment before an emergency service is called). Duda is unrelated to the field of accessing particular applications/functions of electronic processing devices only within an allowed geographic region and, thus, does not suggest anything related to this field.

II. Group 2

As previously discussed, Rangedahl, Mansell, and Duda fail to teach or suggest a device comprising "memory to store a . . . at least one geographic location in which at least one function/application is enabled, and an enablement bit to enable the function/application in the geographic location, the memory within the electronic processing device and connected to the processing electronics." Grube also fails to teach or suggest this element. Instead, Grube is describes a plurality of communication units and a central, communication resource controller, such as a Motorola trunking central controller. *Grube, col. 2, lines 29-45.* Grube teaches that the central controller determines what services are allowed in a geographic region, not the communication unites. *E.g., Id. at lines 50-55; col. 3, lines 1-7; col. 3, lines 13-15; and col. 3, lines 18-23.*

Grube also fails to teach or suggest any method of verifying, after the initial grant of authorizing, whether the electronic processing device is still within the geographic region which the function/application is enabled, and if not, to disable the function/application.

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Moreover, Applicant notes that the claims in Group 2 include the additional acts of assigning priority to different geographic regions so resolve conflicts. The Examiner cites col. 3, lines 13-17 of Grube as teaching this feature, arguing "the predetermined geographic region may be established based on user requirements and/or priority, for example, a hospital area, a construction site, a particular part of the city, or a library." *Office Action mailed May 20, 2005, at ¶5(a)(ii)(1).* Applicant notes that this language is not a direct quotation from the Grube patent; the word 'priority' never appears in that document. Instead, the cited lines are merely stating that multiple geographic regions may be established. Accordingly, there is no teaching or suggestion in Grube that regions may overlap and, if so, how to resolve the conflict.

8. Claims appendix

1. An electronic processing device, comprising:

    (a) a user interface to interact with a user;

    (b) location detection electronics within the electronic processing device;

    (c) processing electronics within the electronic processing device connected to the user interface and the location detection electronics;

    (d) memory to store a plurality of functions/application, and at least one geographic location in which at least one function/application is enabled, and an enablement bit to enable the function/application in the geographic location, the memory within the electronic processing device and connected to the processing electronics; and

    (e) a verifier to periodically determine that the electronic processing device is still within the geographic region which the function/application is enabled, and if not, to disable the function/application.

2. A method to access an application/function in an electronic processing device, comprising the steps of:

    (a) invoking a user interface of the electronic processing device;

    (b) obtaining the GPS location from GPS processing electronics within the electronic processing device of a first geographic location and creating boundaries by extending a selected distance from the GPS location to derive a first geographic region;

    (c) associating at least one application/function of the electronic processing device with the first geographic region;

    (d) enabling a user to access the at least one application/function of the electronic device only when the electronic device is in the first geographic region based on whether the electronic processing device is within the geographic region associated with the least one application/function by determining the present location of the electronic device using GPS

signals processed by GPS processing electronics with the electronic device, and enabling the electronic device based on an enablement bit within the electronic device;

(e) periodically confirming that the electronic device is still within the first geographic region while the application/function is enabled;

(f) disabling the at least one application/function when the electronic device is moved out of the first geographic region while the application/function is enabled.

3. (Previously Canceled)

4. The method of claim 2, wherein the step of entering a description of a first geographic region further comprises:

(a) delineating the boundaries of the first geographic region using a graphical user interface on a map containing the first geographic region.

5. The method of claim 2, wherein the step of entering a description of a first geographic region further comprises entering the longitude and latitude coordinates of the boundaries of the geographic region.

6. The method of claim 2, wherein the step of entering a description of a first geographic region further comprises entering a street address associated with a geographic region.

7. That the method of claim 2, further comprising:

(a) entering a description of a second geographic region;

(b) associating a second application/function with the second geographic region.

8. The method of claim 7, further comprising:

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(a) assigning a priority to the first and second geographic region.

9. The method of claim 7, further comprising;

(a) assigning a priority to the first and second application/function.

10. (Previously Canceled)

11. A method to restrict access to an application/function of an electronic processing device, comprising the steps of:

(a) invoking a user interface of the electronic processing device;

(b) determining the present location of the electronic processing device;

(c) invoking an application/function of the electronic processing device;

(d) enabling the application/function of the electronic processing device by determining that an enablement bit in memory of the electronic processing device is enabled within the present location of the electronic processing device; and

(e) sending a message to abort the enabled application/function whenever the electronic processing device is moved out of present location.

12. A method to protect an electronic processing device from unauthorized use, comprising the steps of:

(a) invoking a user interface of the electronic processing device;

(b) entering a description of at least one geographic location by a method selected from the group of methods consisting of: obtaining the GPS location from GPS processing electronics within the electronic processing device and creating boundaries by extending a selected distance form the GPS location, delineating the boundaries of the first geographic region using a graphical user interface on a map containing the first geographic region,

entering the longitude and latitude of the boundaries of the geographic region, and entering a street address associated with a geographic region;

(c) invoking at least one application/function stored on the electronic processing device;

(d) associating each of the at least one application/function with one of the at least one geographic region by enabling a bit in memory of the electronic processing device which indicates that the at least one application/function can be enabled with the at least one geographic region;

(e) determining the present location of the electronic processing device using GPS signals processed by GPS processing electronics within the electronic processing device;

(f) assigning priority to the at least one geographic region;

(g) allowing the user to use the at least one application/function in the at least one geographic region because the at least one geographic region is the geographic region associated with the at least one application/function;

(h) indicating that the electronic processing device has moved out of the associated geographic region; and

(i) notifying a user that the application/function should be aborted.

13. An article of manufacture, comprising a data storage medium tangibly embodying a program of machine readable instructions executable by an electronic processing apparatus to perform method steps for operating the electronic processing apparatus, said method steps comprising the steps of:

(a) storing a plurality of descriptions of geographic regions in memory of an electronic processing apparatus;

(b) storing a plurality of applications/functions in memory of an electronic processing apparatus, each associated with one or more of the descriptions of geographic regions by

storing an enablement bit in memory of the electronic processing apparatus for one of the plurality of application/functions for one or more of the descriptions of geographic regions;

(c) assigning a priority to each of the plurality of descriptions of geographic regions;

(d) determining and periodically updating the present location of the electronic processing device; and

(e) allowing a user to use an application/function of the electronic processing device in the present location because the present location is within the description of the geographic region associated with the application/function.

14. A secure electronic processing device, comprising:

(a) means within the secure electronic processing device to store a plurality of descriptions of geographic locations in which said secure electronic processing device may be used;

(b) means within the secure electronic processing device to store a plurality of geographic-specific applications/functions, ;

(c) means within the secure electronic processing device to store a plurality of enablement bits, each of the enablement bits enables on of the plurality of geographic-specific applications/functions in at least one of the plurality of descriptions of geographic locations

(d) means within the secure electronic processing device to periodically determine the present location of said electronic processing device;

(e) means within the secure electronic processing device to determine that said present location is one of said geographic locations;

(f) means within the secure electronic processing device to invoke a geographic-specific application/function;

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(g) means within the secure electronic processing device to allow access to the invoked geographic-specific application/function because the present location is one of said geographic locations and the invoked geographic-specific application/function has an enablement bit on.

15. The secure electronic processing device of claim 14, wherein the means to determine that said present location is one of said geographic locations further comprises a GPS antenna and GPS processing electronics.

16. The secure electronic processing device of claim 15, further comprising means to abort the invoked application/function solely because the present location is not one of said geographic locations associated with the invoked geographic-specific application/function.

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9. Evidence appendix

All evidence is already of record.

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10. Related proceedings appendix

There are no related proceedings.

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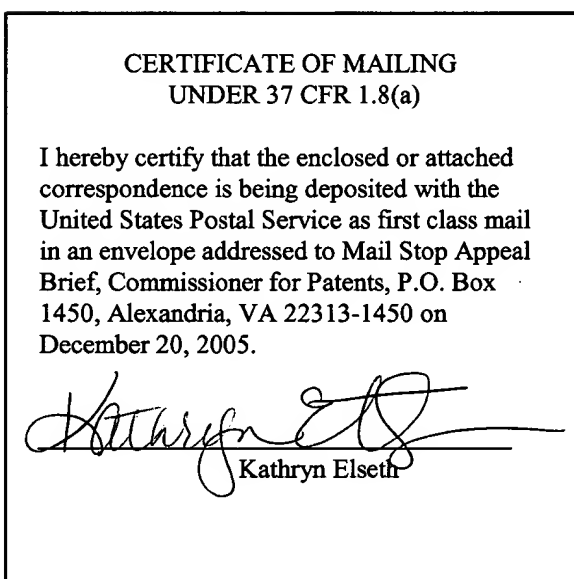
For each of the foregoing reasons, Applicant submits that the Examiner's rejections of claims 1, 2, 4-9, and 11-14 were erroneous, and respectfully requests reversal of these decisions.

Date: December 20, 2005

Respectfully submitted,

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I hereby certify that the enclosed or attached correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Appeal Brief, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 20, 2005.

_____
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